

SPECIFICATION

Please **ADD** the following as the first sentence of the specification:

- 5 -- This is a continuation-in-part of application Ser. No. 09/892,238 filed on 06-26-2001 which application is now abandoned. --

Please **REPLACE** the paragraph [0001] with the following **REPLACEMENT** paragraph [0001]:

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--This invention relates to novel compositions of doped fluorophosphates glass. The new and improved glass compositions are particularly useful in laser glass, amplifiers and high density optical storage applications and are based on or contain Ba (PO₃)₂, Al(PO₃)₃, BaF₂ or related fluorides and MnO ; or oxides or fluorides of rare earth elements: or R₂O₃ where R is from the group Nd, Er, Tm, Ho, Pr, Tb, Yb, Sm and Eu ; mixtures thereof.--

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Please **REPLACE** the paragraph [0009] with the following **REPLACEMENT** paragraph [0009]:

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-- The fluorophosphate glass contains the components Ba(PO₃)₂, Al(PO₃)₃, BaF₂ and RFx where RFx is from the group MgF₂, CaF₂, PbF₂ and BiF₃ or related fluorides and MnO ; [[or]] oxides or fluorides of rare earth elements: R₂O₃ where R is from the group Nd, Er, Tm, Ho, Pr, Tb, Sm, Eu and Yb ; mixtures thereof. This composition of glass has a high level of chemical durability, laser efficiency and luminescence of dopants. --

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Please **REPLACE** the paragraph [0013] with the following **REPLACEMENT** paragraph [0013]:

-- The preferred material for the present invention are glasses based on or containing $\text{Ba}(\text{PO}_3)_2$, $[[10]]$ 5 to 60 mol %; $\text{Al}(\text{PO}_3)_3$, $[[10]]$ 5 to 60 mol %; $\text{BaF}_2 + \text{RFx}$, $[[20]]$ 10 to 90 mol %; and MnO ; or oxides or fluorides of rare earth elements: Nd, Er, Tm, Ho, Pr, Tb, Yb, Sm and Eu ; mixtures thereof, MnO or R_2O_3 , 2 to 20 weight % . $[[,]]$ where R is from the group Nd, Er, Tm, Ho, Pr, Tb, Sm, Eu and Yb. The raw compounds used for glass formation are: Metaphosphate Barium, $\text{Ba}(\text{PO}_3)_2$, and Aluminum, $\text{Al}(\text{PO}_3)_3$, which are considered chemically stable substances. When MnO or Yb_2O_3 are used as co-dopant sensitizers the range of dopant is 1 to 20 weight %.

Please **REPLACE** the paragraph [0018] with the following **REPLACEMENT** paragraph [0018]:

-- The melting process is conducted in the temperature range of 1,200 °C to 1,250 °C in vitreous carbon crucibles in a dry argon atmosphere for 4 to 5 hours followed by an annealing temperature range of 320 °C to 340 °C for 8 to 10 hours. In the system of $\text{Ba}(\text{PO}_3)_2$ - $\text{Al}(\text{PO}_3)_3$ - BaF_2 - RFx with dopants R, including sensitizers MnO and Yb_2O_3 , two separate glass forming ranges were discovered as illustrated in Table I.

TABLE I

Range I (in mol %)

$\text{Ba}(\text{PO}_3)_2$	$\text{Al}(\text{PO}_3)_3$	$\text{BaF}_2 + \text{RFx}$
0- $[[100]]$ 95	0- $[[100]]$ 95	5- $[[30]]$ 90

Range II (in mol %)

$\text{Ba}(\text{PO}_3)_2$	$\text{Al}(\text{PO}_3)_3$	$\text{BaF}_2 + \text{RFx}$
0-45	5-30	45-90